Work Orde					*918	361*							Page 1
Revision ID:	D350-591-2		LH		Accept	*N900	040	100)*	Setup	Start Stop		S1* S2*
Start Date:	quired Date: 11/09/12 Req'd Qty: 4.0 Perence:			*4* *4*	,	Cust Item ! Customer:	ID:					I VI	
Approvals:	Process Pla	an:	W	Date://2-10-19	Tooling:	D	ate:	-		Run	Start	*N	R1*
••				Date:	SPC (Y/N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center II)	Operati Descrip			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	t Rej		Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nb	r	,, <u> </u>									
D3078 DSI 9472	A A			1 20.									
*100		DOCUM	ENT CONTROL	,	0.00	GAR				-			
DC Document Control			Memo Photocopy b	luefile and type labels as p	0.00 er PPP D350-591-213(CHG003 16	2/4/16						
110					0.00		,	÷	(. 11
*11 0 * Large Fab		Large Fal	Memo		0.00				4	9	<i>P</i>		12.10.24
Large Fab			1-Cut D2622	-120 extrusion to 59.75" lo ion as per Dwg D3078 usi	ng as per Dwg D3078	S.	ĭ			ί			10.10.24

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	cor	NFORM	ANCE / UPDA	ATE	0461	Data	•
											QA Closed:	Date:	
Mark Orde	. r.	1				DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Work Orde	۲۰.					Rework	וו		Skid-tube	Crosstube]	Water Jet	Engineering
Part N	No.					Scrap	1		Machining	Small Fab	l Pro	d. Eng. Coor.	Quality
						Use-as-is	1	1	noforming	Finishing	4	re/Packaging	Other
NCR I	۷o۰					Work Order Update			Large Fab	Composite]	Supplier	
Root	. [Descri	ption of work order update		Initial	Actio	n	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	nief Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data		,									1		
Equip/Tooling												1	
Operator			1								Ŀ		
Material													
Setup							1					į	
Other													
Process		-											
Supplier													
Training						y My B							
Unapproved													
						-3-8-f F	AUI	LT CATE	GORY				
Landi	ng (Gear				General		_		,	_		-
		Bending			L_	Bend		Grain			Ovalized	L	Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped			Burrs	Instructions Incomplete/Unclear				Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination]Mainte	nance		Part Moved		
		Heat Trea	at			Countersink		Mislabe	led		Positioned \	Wrong	
		Inspectio	n Strip in	Tube	. [Cut Too Short		Misread	i		Power Loss,	/Surge	Other
		Ripples in	Bend			Drill Holes	Offset				_		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Orde October-19-12				*918	361*							Page 2
Item ID: Revision ID:	D350-591-21	13		Accept	*N900	040	1100)*	Setup		*N	S1*
Item Name:	Heli-Access-S	tep, Short LH								Stop	*N:	S2*
Start Date:	10/18/12	Start Qty: 4.00	*4	*	Cust Item 1	ID:						
Required Date:	11/09/12	Req'd Qty: 4.00	*4	*	Customer:							
Reference:												
Approvals:	Process Pla	n:	Date:	Tooling:	D	ate:			Run	Start	*N	R1*
				SPC (Y/N):		ate:				Stop	*N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp.
120		QC6- Inspect dimension	s to drawing	0.00			210					Dan
120		Memo		0.00		(24	D	<u> a-10</u>	281	\	2.89
Quality Control												
130				0.00								
130		Large Fab						4	d			J.
Large Fab		Memo		0.00					- - ү			17.11.5
Large Fab		2-Weld Sup	for welding FWD of port using Jig DT86 num Rod MJJ 1 Plate flush MJJ	681, weld Fwd End Plate as per	QSI 004 & Dwg						,	12.11.0 Le 12.11

140

QC9- Inspect visual per QSI004- Fusion Welds

0.00

*14**0***

Memo

0.00

Q 12-11-02



Quality Control

											DQA:	Date	::	
NCR: Y	⁄es	/ No				WORK ORDER NON-O	O	NFORN	MANCE / UPDATE		QA Closed:	———— Date	·	,
						DISPOSITION			AGAINS	T DE	PARTMENT,		•	
Work Orde	er:					DISFOSITION	,		<u>_</u>		, <i>-</i> , , , , , , , , , , , , , , , , , , ,			
Part N NCR N	•					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Crosstub Machining Small Fa noforming Finishin Large Fab Composit	b g	4	Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
NCK	NO.					Work Order opdate	J		composit	· <u></u>]	Jupplie- [لــا
Root					Descri	ption of work order update		nitial	Action		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification		QC Inspector
Doc/Data		·												
Equip/Tooling														
Operator]		ļ							
Material														
Setup						1.								
Other					- ;	<u> </u>	•							
Process						•								
Supplier													1	
Training														
Unapproved														
						F	AUL	T CATE	GORY			•		
Landi	ng (ear				General								
		Bending				Bend		Grain			Ovalized			Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa	re		Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct		Weld
		Crushed/	Crimped	_		Burrs		Instruct	ions Incomplete/Unclear		Part Lost/M	issing		Wrong Stock Pulled
		Cuffs	•			Contamination		Mainte	·		Part Moved	· ·	_	-
	Г	Heat Trea	ət			Countersink		Mislabe			Positioned \			
	\vdash	Inspectio		Tube	<u> </u>	Cut Too Short		Misread			Power Loss,			Other
r	-	Ripples in				Drill Holes		Offset		_		- L		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Orde		'		*918	61*							Page 3
Revision ID:	D350-591-2			Accept	*N900	<u>040</u>	100)*	Setup	Start Stop	1 71	S1*
Item Name: Start Date: Required Date: Reference:	Heli-Access-S 10/18/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item Customer:	ID:				July	^N\	S2*
Approvals:	Process Pla	nn:		Tooling: SPC (Y/N):		ate:			Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II 150 *150* QC Quality Control	D	Operation Description QC5- Inspect part compl	eteness to step on W/O	Set Up/ Run Hours 0.00 0.00 12 11	Tool ID	Tool#	Plan Code	Accep Qty	t Re Qt		Reject Number	Insp. Stamp
*160 *160* HandFinish Hand Finishing		Chemical Conversion Co	oat per QSI005 4.1	0.00				4	Y	<u>d</u>	M	11/1/0
170 *170* QC		QC3- Inspect Part Finish Memo		0.00				4	6	12	11-7.	200 a

Quality Control

											DQA:	Date:	9
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	ANCE / UP	DATE			
								,			QA Closed:	Date:	
Work Ord	er.					DISPOSITION				AGAINST DI	PARTMENT	PROCESS	
Part NCR	No.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Neit	١٩٠٠.	:				Work Order opdate	J		carge rab	composite	_}	3upplie,	<u>ا</u> ـــا
Root					Descri	ption of work order update	П	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	H		ļ										
Operator	-]										
Material Setup	H						<u> . </u>						
Other					,	•	31						
Process	Н						ľ						
Supplier	Н												
Training	H												
Unapproved	П						İ						
			·			F.	AUL	T CATE	GORY		<u> </u>		
Land	ing G	Gear				General							
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks					Broken/Damaged		Inspect	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Ш	Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	at			Countersink		Mislabe	eled		Positioned \	Vrong	_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
		Torque W	/aves in E	xtrusio	n T	Drawing		Out of	Calibration	edS _			

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*918	861*							Page 4
Item ID: Revision ID: Item Name:	D350-591-2 Heli-Access-S	13 Step, Short LH		Accept	*N900	040	100)*	Setup	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	10/18/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:			_	•		•
Approvals:		an:				ate:]	Run	Start Stop	*NI *NI	₹1* ₹2*
Sequence ID/ Work Center II 200 *200* Large Fab Large Fab)	2-Bevel Aft 3-Inspect fo 4-Weld Aft	g Assembly as per Dw end for welding r foreign object as per End Plate as per QSI on ninum Rod 12235 I Plate flush	QSI 024 004 & Dwg D3078	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp Ae 12.11.
210 *210* QC Quality Control		QC10- Inspect visual pe Memo	r QS1004- ground wel	SAS	2/4/14					·		
*220 *200* QC Quality Control		QC5- Inspect part comp	leteness to step on W/	0.00	12/4/14			44	M			-

.

NCR: Y	es /	No				WORK ORDER NON-	COL	NFORM	MANCE / UPI	DATE			
	•	1							_		QA Closed:	Date:	•
Work Orde	er:	·				DISPOSITION Rework			Skid-tube	AGAINST DE	PARTMENT	PROCESS Water Jet	Engineering
Part N						Scrap Use-as-is Work Order Update		Thern	Machining noforming Large Fab	Small Fab Finishing Composite	!	d. Eng. Coor. re/Packaging Supplier	Quality Other
								141 1	Λ - 4	:	Cian 0		
Root			C+	04		ption of work order update		nitial		ion	Sign &	Verification	QC Inspector
Cause		Date	Step	Qty		or Non-conformance	Cn	ief Eng	Desci	ription	Date	verification	QC IIISpector
Doc/Data Equip/Tooling													
Operator							İ						
Material	Ш												
Setup						·	ŀ						
Other													
Process									·				
Supplier	Ш		İ										
Training													
Unapproved				i			1				l		
		 					AUL	T CATE	GORY				
Landi	ng Gea				_	General	_	1		_	1	r	7
	Bending					Bend	_	Grain 2			Ovalized		Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa			Over/Under	ļ	Temperature/Cure
	Cracks					Broken/Damaged		4	ion Incomplete	<u></u>	Part Incorre	<u> </u>	Weld
	Cr	ushed/C	Crimped			Burrs		4	ions Incomplete/	Unclear	Part Lost/M	_	Wrong Stock Pulled
	∐ Cu	ffs				Contamination	\perp	Mainte			Part Moved		
	ЩH€	at Trea	t			Countersink	L	Mislabe	eled		Positioned \	Wrong	7
	lins	pection	Strip in	Tube		Cut Too Short	L	Misrea	i		Power Loss/	'Surge	Other
	Ri	ples in	Bend			Drill Holes	L	Offset					
	l Ιτο	raue W	aves in f	xtrusio	n [Drawing		Out of	Calibration				

Out of Sequence
Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ordo				*918	361*				F	Page 5
Item ID: Revision ID:	D350-591-2	13		Accept	*N900040	100*	Set	up Start	*NS1	*
Item Name:	Heli-Access-S	Step, Short LH						Stop	*NS?) *
Start Date: Required Date: Reference:	10/18/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item ID: Customer:					
Approvals:	Process Pl	an:	Date:	Tooling:	Date:		Rur		*NR1	*
	QC:		Date:	SPC (Y/N):	Date:			Stop	*NR2)*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID Tool #				Reject Ins Number Star	
230		Chemical Conversion Co	oat per QSI005 4.1	0.00						-
230 HandFinish Hand Finishing		Memo		0.00			4	26	1211-1	5
240		White Gloss(Ref:4.3.5.1)) per QSI005 4.3-Alum	0.00		,				ML
* 24 0* Powdercoat			-,0	0.00_		4	X O			2/1/
Powder Coating M (22)	378	Memo START TIM OVEN TEM FINISH TIM	1PERATURE: 50			ν			10	×/11(/2
250		Wing Walk as per dwg (QSI005 4.4 Batch <u>/ 25</u>	6500						
250			,			4	ϕ		DR 12-1	115.
HandFinish		Memo		0.00						

Hand Finishing

NCR: Y	es/	/ No				WORK ORDER NON-	COr	NFORI	MANCE / UP	DATE	QA Closed:	Date:	,
Work Orde	or:				<u></u>	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- ۱۰۰					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												•	
							AUI	T CATE	GORY				
Landi		g Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion				General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Måinte Mislabe Misread Offset	ion Incomplete ions Incomplete/ enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned \ Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
		Turning S				Finish		Out of s	Sequence		•		

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Work Orde October-19-12				*918	361*							Page 6
Revision ID:	D350-591-2 Heli-Access-S	13 Step, Short LH		Accept	*N900	<u>040</u>	100*	e s	etup	Start Stop	*N.S	
	10/18/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item l Customer:	ID:					IVI	
Approvals:		an:	Date:	Tooling: SPC (Y/N):		ate:		R	un	Start Stop	*NF	?1* ?2*
Sequence ID/ Work Center II 260 *260* QC Quality Control)	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00	Tool ID	Tool #	Code (accept Oty	Rej Qty		Number S	Insp. Stamp
270 *270* Packaging Packaging		Pick Kit Memo		0.00			_	SP		12	111(5	S
²⁸⁰ *28∩* ^{QC}		QC4-100% Inspect kits i	for completeness	0.00 (DAS)	13/11/16			· · · · · · · · · · · · · · · · · · ·				

Quality Control

											DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	ANCE / UPDAT	Ε	·		•
		•									QA Closed:	Date	::
Work Ord	or:					DISPOSITION			A	GAINST DE	PARTMENT	PROCESS	
WORKOIG	-					Rework	٦		Skid-tube Cr	osstube		Water Jet	Engineering
Part I	No.					Scrap	1 1		—	mall Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is]		~ —	inishing	Rec/Stor	e/Packaging	Other
NCR	No.		- ·· · · · · · · · · · · · · · · · · ·			Work Order Update]		Large Fab Co	mposite		Supplier	
Root	Ţ				Descri	ption of work order update	П	Initial	Action		Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Descriptio	n	Date	Verification	QC Inspector
Doc/Data											1		
Equip/Tooling	Ш									•			
Operator	Щ					•							
Material	Ш												
Setup	Ш		ļ										
Other 、	Ш												
Process													
Supplier	Ш											ļ	
Training	Ш												
Unapproved			<u> </u>				<u> </u>				<u> </u>		
							AUI	LT CATE	GORY				
Land					_	General	_	1		_	1	Г	¬_
	\vdash	Bending				Bend	-	Grain			Ovalized	<u> </u>	Pressure/Forced
		Centre N	ot Conce	ntric to C	^{D/S} _	BOM/Route	\vdash	Hardwa		-	Over/Under	<u> </u>	Temperature/Cure
	-	Cracks				Broken/Damaged	<u> </u>	-l `	on Incomplete	_	Part Incorre		Weld
	\blacksquare	Crushed/	Crimped		-	Burrs	_	4	ions Incomplete/Uncle	ar	Part Lost/M		Wrong Stock Pulled
	Ш	Cuffs				Contamination	<u> </u>	Mainte			Part Moved		
		Heat Tre			<u> </u>	Countersink		Mislabe			Positioned \		
		Inspectio		Tube	<u> </u>	Cut Too Short	\perp	Misread	d		Power Loss,	'Surge	Other
1		Ripples in	n Bend			Drill Holes	1	Offset					

Out of Calibration

Outside Dimensions

Out of Sequence

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Orde October-19-12				*918	361*							Page	e 7
Item ID: Revision ID: Item Name:	D350-591-2	213 Step, Short LH		Accept	*N900	040	100)* s	etup	Start Stop	ı VI (S1* S2*	
Start Date: Required Date: Reference:	10/18/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:							
Approvals:	Process P	lan:	Date:	Tooling: _	Da	ate:	_	R		Start	1/1	R1*	•
	QC:		_ Date:	SPC (Y/N):	Da	ate:				Stop	*N	R2*	•
Sequence ID/ Work Center II 290)	Operation Description Packaging		Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp	
200 Packaging		Мето		0.00				4.			(21)	46	-S
Packaging		Identify and Location: PPP Rev:	l pack for shipping as per	PPP D350-591-213									
300		QC21- Final Inspection	- Work Order Release	0.00								,	-10

0.00

Memo

300

Quality Control

12/11/19 Af MF 12-11-29

												DQA:	Date	e: _	
NCR:	Yes .	/ No				WORK ORDER NON-C	O	NFORM	AANCE / UPD	ATE		_		_	
											Q/	Closed:	Date	e:	
Work Orde	or:					DISPOSITION				AGAINST DE	PA	RTMENT/	PROCESS	-	
WOIK OIGE	_					Rework	1		Skid-tube	Crosstube	7		Water Jet	\neg	Engineering
Part N	No.					Scrap			Machining	Small Fab	1	Proc	l. Eng. Coor.		Quality
						Use-as-is		Therm	noforming	Finishing]	Rec/Store	e/Packaging		Other
NCR N	No					Work Order Update			Large Fab	Composite]		Supplier		
Root					Descri	otion of work order update		nitial	Acti	on	:	Sign &			
Cause		Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Descri	iption	1_	Date	Verification		QC Inspector
Doc/Data															
Equip/Tooling														Ì	
Operator														1	
Material	Ш														
Setup															
Other															
Process									•						
Supplier							1								
Training							ļ								
Unapproved								1							
						F	AUL	T CATE	GORY						
Landi	ng Ge	ear				General		_			_		_		
		Bending				Bend		Grain]o	valized			Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re		0	ver/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Pa	rt Incorred	it [Weld
	Crushed/Crimped Burrs							Instruct	ions Incomplete/U	Inclear	Pa	rt Lost/Mi	ssing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance	Γ	Pa	rt Moved	-		-
		leat Trea	t			Countersink		Mislabe	led	Γ	Po	sitioned W	Vrong		
	[]ı	nspection	n Strip in	Tube		Cut Too Short		Misread	Í		Po	ower Loss/	Surge		Other
	F	Ripples in	Bend			Drill Holes		Offset			_		•		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-19-12 12:48:32 PM

Work Order ID:

91861

Parent Item:

D350-591-213

Parent Item Name:

Heli-Access-Step, Short LH

Start Date: 10/18/12

Required Date: 11/09/12

Page 1

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:B05.10.14Modified step 10KJ/EC

IPP Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM

IPP Rev:C 06-06-27 Revised as per DSI9340 JLM

IPP Rev:D 10.03.17 incorporate seq

IPP

180 to 200 remove qc5 DD verified by:JLM

	Rev:E 10.11.15 (update qty on AN4	-IIA L	DD vert:EC									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2622-120C		Manufactured	No			110	Each	208.3900	0.5	2		n /0	01/
Step Extrusion									C		Sh 10	2.70.	24_
				Location		Loc Oty	<u>Lo</u>	c Code					
				HALL		16.37							
				4691	0	2							
				6440	0	4							

			0,
Location	Loc Oty	Loc Code	
HALL	16.37		
46910	2		
64409	6		
66970	7.7		
68293	0.25		
72131	0.42		
WA	182.66		
81507	1.88		
83894	12.38		
88513	28.4		_2_
89750	140		
WA013	9.36		
75781	2		
77612	7.36		

										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	ON	NFORM	MANCE / UPDATE		QA Closed:	Date:	
NAV = who O made			***		DISPOSITION			AGAINST D	E	PARTMENT/	PROCESS	
Part N	No				Rework Scrap Use-as-is Work Order Update			Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite			Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Į.	nitial	Action		Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling		l										
Operator												
Material												
Setup												
Other												
Process											•	
Supplier												
Training												
Unapproved						<u>.</u>						
					F.	AUL	T CATE	GORY				
Landi	ng Gear				General			_		•		7
	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to	o/s [BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspect	on Incomplete		Part Incorred	ct	Weld
	Crushed/Crimped. Burrs						Instruct	ions Incomplete/Unclear		Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs Contamination						Mainte	enance		Part Moved		
	Heat Tre	at			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration
Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

October-19-12 12:48:32 PM

Work Order ID:	91861 D250 501 212		*					C4a m4 T	Nada - 10/19/1	,	D
Parent Item:	D350-591-213	* * * *							Date: 10/18/12	2	Required Date: 11/09/12
Parent Item Name:	Heli-Access-Step, Short	LH						Start	Qty: 4.00		Required Qty: 4.00
D3067-1 End Plate	M	fanufactured	No			130	Each	226.0000	1	4	12.11.01
				Location		Loc Qty		Loc Code			
				WA		. 222					
					78608	4					
					83855	1					
					90177	15					
					90178	22				<i></i>	•
					90335	60				<u> </u>	
	•				90336	60					
					90486	60					
				WA016		4					
					67582	2					
					68214	1					
					79607	1					11
D3063-1	M	Sanufactured 1 4 1	No			130	Each	32.0000	1	4	M12.11.01
Support											1612.11.01
				Location		Loc Oty		Loc Code			
	•			WA016		32				_	
					71886	32				/.	
MS20600-AD4W4	D.	umala a a d	No	-		180	Each	1,578.0000	16	64	1
	r	urchased	110			100	Luçii	1,576.0000	10	04	Ac 12.11.12
Rivets									4-01-2-20-00-0		
				Location		Loc Oty		Loc Code			
				321		18					
					121652	18					
				ST311		1000				~	
					123021	1000			(1)	4)	
				ST321		560			~	ノ	
					121011	9					
					121340	39					
					121340	512					
					121444	312					

											DQA:	Dat	e: _	•
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UPDATE					•
											QA Closed:	Dat	e:	
Work Ord	or:					DISPOSITION			AGAI	NST DE	PARTMENT	PROCESS		
WOIK OIG	-					Rework	1		Skid-tube Crosst	ube		Water Jet	\neg	Engineering
Part I	No.					Scrap			Machining Small	— —	Pro	d. Eng. Coor.		Quality
	•				<u> </u>	Use-as-is			noforming Finis		Rec/Stoi	e/Packaging		Other
NCR I	No.			-		Work Order Update			Large Fab Compo	osite		Supplier		
Root					Descri	ption of work order update	Ī	nitial	Action		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	1	QC Inspector
Doc/Data	Ш	i .												
Equip/Tooling	Ц		<u> </u>										Ì	
Operator	Ш												İ	
Material														
Setup	Ш													
Other	Ш											ļ	-	
Process	Ы								t.					
Supplier	Ш													
Training														
Unapproved			<u> </u>				<u> </u>				ļ	<u>[</u>		·
							AUL	T CATE	GORY			 		····
Landi		l .			_	General		٠]	1		Pressure/Forced
	\vdash	Bending			.,,	Bend	-	Grain		<u> </u>	Ovalized	A-1	-	· ·
	\vdash	Centre N	ot Conce	ntric to C)/S -	BOM/Route	-	Hardwa		-	Over/Under			Temperature/Cure Weld
	Cracks Broken/Damaged Burrs							1	on Incomplete		Part Incorre		-	4
	\vdash		crimped		_	┥	_	1	ions Incomplete/Unclear	-	Part Lost/M	_		Wrong Stock Pulled
	-	Cuffs			-	Countageinle	-	Mainte			Part Moved			
	\vdash	Heat Trea		Tules	<u> </u>	Countersink	\vdash	Mislabe		-	Positioned \	_		lothar
	-	Inspectio	-	i iube	<u> </u>	Cut Too Short	-	Misread	J.	L	Power Loss,	onige	L	Other
1		Ripples in	ı Bend			Drill Holes	L	Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

October-19-12 12:48:32 PM

Work Order ID:	91861									
Parent Item:	D350-591-213						Start	Date: 10/18/12		Required Date: 11/09/12
Parent Item Name:	Heli-Access-Step, Short LH						Star	t Qty: 4.00		Required Qty: 4.00
D3066-1 Spacer	Manufactured	No			180	Each	179.0000	2	8	B90012 (x\$
			Location		Loc Qty		Loc Code			Ae 12.11.12
			WA		179					16 16 11
				90211	30					
				90212	60			(8)		
				90346	29					
				90347	60					
D3065-041 Step Leg Assembly Hi	Manufactured	No			180	Each	21.0000	1	4	B90012 (4)
			Location		Loc Qty		Loc Code			Ae 12.11.16
			ST		-30					The Builting
			WA		21					
				66149	0					
				79336	1					
				88822	5					1
				90011	15					ı
			WA013		30					_
D3067-1 End Plate	Manufactured	No			200	Each	226.0000	1	4	M12.11/2
			Location		Loc Òty		Loc Code			
			WA		222		<u>bot cout</u>			
				78608	4					
				83855	1					
				90177	15					
				90178	22			./		
				90335	60			4		
				90336	60					
				90486	60					
			WA016		4					
				67582	2					
				68214	1					
				79607	1					

NCR: Y													
		,									QA Closed:	Date:	
Work Orde	er:		-			DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
Part N	۔ . No					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•								, <u></u>	` L			<u> </u>
Root Cause		Date	Step	Qty	1	ption of work order update or Non-conformance		nitial iief Eng	Act Descr	ion iption	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved		Dute									,		
	L		<u> </u>		<u>.t.</u>	F	AUL	T CATE	GORY				
Landi		Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion				General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Mainte Mislabe Misrea Offset	ion Incomplete tions Incomplete/U enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	<u> </u>	Turning S				Finish		4	Sequence				· · · · · · · · · · · · · · · · · · ·

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

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October-19-12 12:48:33 PM

Work Order ID: Parent Item: Parent Item Name:	91861 D350-591-213 Heli-Access-Step, S	Short LH							Date: 10/18/12 t Qty: 4.00		Required Date: 11/ Required Qty: 4.0	
AN3-854) >> Bolt		Purchased	No			270	Each	190.0000	2	8	20	SQ.
5				Locatio	<u>n</u>	Loc Qty		Loc Code				7
ο Λ				FG		10						
A					122800	10						. •
				ST353		180						4
					123352	180			_ \	(78
D2856-400 Abrasion Strip		Manufactured	No			270	f	409.2539	0.6	2.4	B8935	52.88
alm 11 0 7-2				Locatio	<u>n</u>	Loc Qty		Loc Code			-	•
•				ST403		120.2525						
44 -	neasur				81875	6.398						
	8/2/11/16				89352	113.8545						
	810101			ST408	90764	216 216						
				ST409	90704	73.0014						
	•			31409	63735	0.6696						
					68076	0.3149						
					71164	8.46						
					86905	63.5569						
AN4HIA Bolt		Purchased	No			270	Each	132.0000	2	8	SP	
M				Locatio	<u>n</u>	Loc Qty		Loc Code				
				FG		8						
	•				120731	8						\wedge
				ST356		124						
A					120731	28 <u>.</u> 96			-0	X		7710
AN960JD416 Washer	NAS1149D0463J	Purchased	No		122808	270	Each	29.0000		48	か <i>D</i> 335	55.80
				<u>Locatio</u>	<u>n</u>	Loc Oty		Loc Code			m/J335 12-	11 10-
				ST351		29					10	11-18
					116289	8						
					119097	21						

NCR:	Yes /	No				WORK ORDER NON-	COL	NFORN	//ANCE / UP	DATE			
		i									QA Closed:	• Date	:
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part f						Rework Scrap Use-as-is		r	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	l	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR i	No				<u>. </u>	Work Order Update			Large Fab	Composite	,	Supplier	
Root					Descri	ption of work order update		nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved							FAUL	T CATE	GORY				
Landi	ng Gea	ır				General							
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Wayes in Extrusion				Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete ions Incomplete/ enance eled d	/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
	i ITo	raue W	aves in F	xtrusion	1 I	IDrawing	1	10 ut of (Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date: ____

Turning Sequence

Wave/Twist in Tube

Finish Folio

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161

121652

122063

NCR:													
											QA Closed:	Date:	•
Work Orde	or.					DISPOSITION			AG	AINST DE	PARTMENT	PROCESS	
Part N	- No					Rework Scrap Use-as-is Work Order Update		I Therm	Machining Sma	istube all Fab ishing posite	•	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root		Data	Ston	Otv		ption of work order update or Non-conformance	j	nitial ief Eng	Action Description		Sign & Date	Verification	QC Inspector
Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved		Date	Step	Qty		or Non-comormance	CII	let crig	Description		Date	Vermication	Qe inspector
	·					F	AUL	T CATE	GORY				
Landi	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend				o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		· ·	ion Incomplete ions Incomplete/Unclear enance eled		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

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October-19-12 12:48:33 PM

Work Order ID: Parent Item:	91861 D350-591-213								Date: 10/18		uired Date: 11/09	
Parent Item Name:	Heli-Access-Step, S	Short LH						Star	Qty: 4.00	Re	quired Qty: 4.00	
D2732 Rubber Extrusion	-	Manufactured	No			270	f	259.4295	1	4.2105264	SP.	7
14 D Z	5			Locatio	<u>n</u>	Loc Qty		Loc Code			-	
U Central	3			ST410		259.4294684						
(Certification)	- nersons				70987	0.3						
	8,21111k				83560	259.129468			4	1,205264	1	
D2230-8		Manufactured	No			270	Each	316.0000	2	* B	89082	-24
				Locatio	<u>n</u>	Loc Qty		Loc Code		* B	C3761	31
ı				FG							8 33 41	~
					89045	1					4	
				ST469		315						
					89782	19						
					89950	200						
					90514_	96				SXYX	,	
AN960JD10 Washer	NAS1149D0363J	Purchased	No			270	Each	0.0000	8 0 1	m ¹⁶ /2	2 JYCE	P
MS21042L4 Nut		Purchased	No			270	Each	5,326.0000	<u>6</u>	\mathcal{S}^{24}	2-11-15	
J				Locatio	<u>n</u>	Loc Qty		Loc Code		91		
				314		1399						
					122452	1399						
				ST300		27						
					119017	20						
					121444	7			***************************************			
				ST314		3900						
					123021	3000			3	NX		
					123248	900						

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE															
		•									QA Closed:	Date:				
Work Ord	er: ˌ					DISPOSITION		AGAINST DEPARTMENT/PROCESS Skid-tube Crosstube Water Jet Engineering								
Part I						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Prod Rec/Stor	Engineering Quality Other				
Root		!			i	 iption of work order update		Initial		Action			061			
Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Descr	ription	Date	Verification	QC Inspector			
Doc/Data . Equip/Tooling																
Operator			·													
Material		I					1									
Setup																
Other																
Process	L															
Supplier	L		1	1												
Training	L															
Ünapproved	<u> </u>			<u> </u>							<u> </u>					
							FAU	LT CATE	GORY							
Landi	_	3				General	_	٦			٦		7			
	<u>_</u>	Bending				Bend	ļ	Grain		_	Ovalized		Pressure/Forced			
·	_	Centre N	ot Conce	ntric to	o/s	BOM/Route	_	Hardwa			Over/Under		Temperature/Cure			
		Cracks				Broken/Damaged	<u> </u>	⊣ `	ion Incomplete	<u></u>	Part Incorre		Weld			
	<u></u>	Crushed/	Crimped	•		Burrs		Instruct	ions Incomplete/	Jnclear	Part Lost/M	issing	Wrong Stock Pulled			
		Cuffs				Contamination	L	Mainte		<u></u>	Part Moved					
		Heat Tre	at			Countersink		Mislabe			Positioned \		7			
		Inspectio		Tube		Cut Too Short		Misread	d		Power Loss/	'Surge	Other			
		Ripples in	n Bend		L	Drill Holes	L.	Offset								
1	Torque Waves in Extrusion D					Drawing	Out of Calibration									

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

October-19-12 12:48:33 PM

Work Order ID:

91861

Parent Item:

AN4-16A

Bolt

D350-591-213

Parent Item Name:

Heli-Access-Step, Short LH

Start Date: 10/18/12

Required Date: 11/09/12

Start Qty: 4.00

Required Qty: 4.00

4 16

Purchased No 270 Each 244.0000

Location Loc Oty Loc Code

FG 5
121541 5

ST357 231
122814 31
123352 200

ST358 8
120498 8

16 x

NCR:													
											QA Closed:	Date	•
Work Orde	er:	•				DISPOSITION AGAINST D					PARTMENT/	PROCESS	
Part No. NCR No.						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Prod Rec/Stor	Engineering Quality Other	
Root		Date	Ston	Qty		ption of work order update	1	nitial ief Eng	Act Descr		Sign & Date	Verification	QC Inspector
Cause	-	Date	Step	Qty		or Non-comornance	Ci	ner Eng	Desci	iption	Date	Vermeation	QC 1113pccto1
Doc/Data Equip/Tooling	\dashv												
Operator	\dashv												
Material	Н												
Setup	\exists		}				1						
Other	Н												
Process	П												
Supplier	П												
Training	П												
Unapproved													
						F	AUl	T CATE	GORY		_		
Landi	ng G	Gear				General		_		·	=	_	_
		Bending				Bend	<u></u>	Grain			Ovalized		Pressure/Forced
	Ш	Centre No	ot Conce	ntric to (o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	-	Cracks			_	Broken/Damaged		4	ion Incomplete		Part Incorre	<u> </u>	Weld
	_	Crushed/	Crimped		ļ	Burrs	<u> </u>	4	ions Incomplete/U	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
	Н—	Cuffs				Contamination	<u></u>	Mainte			Part Moved		
	-	Heat Trea				Countersink	_	Mislabe			Positioned V	_	\neg
		Inspectio	•	Tube	_	Cut Too Short	 	Misread	d		Power Loss/	Surge	Other
	Щ	Ripples in				Drill Holes	<u>_</u>	Offset					
	Torque Waves in Extrusion				า	Drawing Out of Calibration							

Out of Sequence

Outside Dimensions

DQA: Date:

Turning Sequence

Wave/Twist in Tube

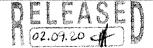
Finish

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DESIGN DRAWN BY		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					
CHECKED APPROVED		APPROYED	DRAWING NO. RI D3078 SHEET	EV. A 1 OF 2				
DATE	02.	09.11	STEP ASSEMBLY, HI SHORT	CALE NTS				
Α	0	2.09.11	NEW ISSUE					

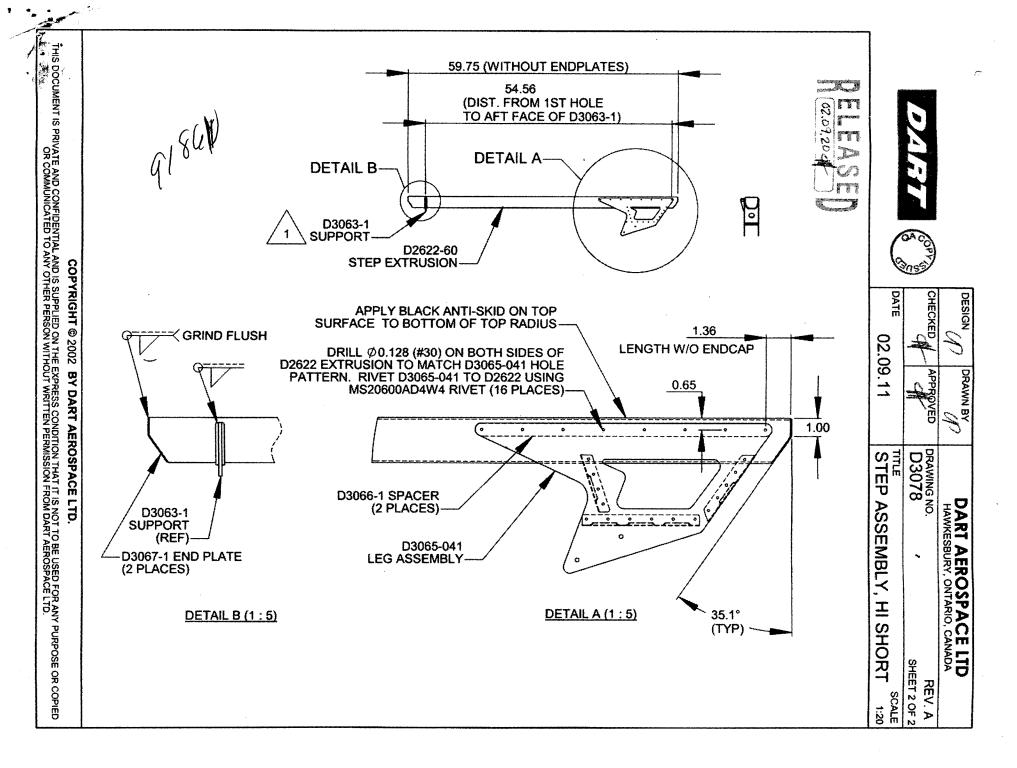


9/8le/ pl/0-10-19

Part No.	Description	QTY -041	QTY -042
D3078-041	Step Assembly, High Short (LH)	X	
D3078-042	Step Assembly, High Short (RH)		X
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

GENERAL NOTES:

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
 BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.



DART AEROSPACE LTD.

Qty	Qty	Qty-	Qty	Qty	Qty	Qty	Qty	Part Number	Description
-211	-212	213	-214	-215	-216	-311	-312	D350-591-211	Heli-Access-Step™, Long Step High Skid, LH
Х								D350-591-211	
	<u> </u>								Heli-Access-Step™, Long Step – High Skid, RH
		Х						D350-591-213	Heli-Access-Step™, Short Step – High Skid, LH
			Х					D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
				Х				D350-591-215	Heli-Access-Step™, Short Step - Low Skid, LH
					X			D350-591-216	Heli-Access-Step™, Short Step – Low Skid, RH
						X		D350-591-311	<i>Heli-Access-Step</i> ™, Long Step – High Skid, LH
							Х	D350-591-312	Heli-Access-Step™, Long Step – High Skid, RH
1		 						D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
<u> </u>	1	 						D3070-041	STEP ASSEMBLY (HIGH-LONG, RH)
	I	 						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
-		1 1	1		-			D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
L				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
		 			1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
		<u> </u>				1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, RH)
							1		
44	4							D2182B035	RUBBER CUSHION
		2	2	2	2		ļ <u>.</u>	D2230-1	MOUNTING LUG
		2	2	2	2	4	4	D2230-3	MOUNTING LUG
8	88							D2274	RADIUS BLOCK
						2	2	D2618	BUSHING
4	4	-4	4	4	4			-D2732(030-)	TCUSHION-1
2	2		<u>=1=</u>	<u>—1—</u>	1_	2	==2=		-ABRASION:STRIP-
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	2	D3235-1	MOUNTING LUG
						1	11	D3278-041	SUPPORT ASSEMBLY
				2	2	2	2	AN3-35A	BOLT
2	2	2	2	2	2			AN4-11A	BOLT
10	10	2		4	4	-	8	AN4-11A AN4-13A	BOLT
		4	4	4	4	8	2	AN5-36A	BOLT
ļ		<u> </u>				2		AN960JD10	WASHER
4	4	4	4	12	12	4	16	AN960JD10 AN960JD416	WASHER
20	20	12	12	12	12	16		AN960JD416 AN960JD516	WASHER
		 				2	2	MS21042L3	NUT
2	2	2	2	2	2				NUT
10	10	6	6	6	6	8	8	MS21042L4 MS21042L5	NUT
						2	2		STEP MODIFICATION KIT
		l				11	11	*DSI 9410-011	STEP WODIFICATION KIT

^{*}DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore <u>NOT REQUIRED</u> to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.

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Revision: \boldsymbol{G}

Date: 08.10.06



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Qty -211	Qty -212	Qty	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
Х								D350-591-211	Heli-Access-Step™, Long Step – High Skid, LH
	Х							D350-591-212	Heli-Access-Step™, Long Step – High Skid, RH
		х						D350-591-213	Heli-Access-Step™, Short Step - High Skid, LH
			Х					D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
				X				D350-591-215	Heli-Access-Step™, Short Step – Low Skid, LH
					Х			D350-591-216	Heli-Access-Step™, Short Step - Low Skid, RH
						X		D350-591-311	Heli-Access-Step™, Long Step – High Skid, LH
							X	D350-591-312	Heli-Access-Step™, Long Step – High Skid, RH
1							ļ	D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
	1						 _	D3070-042	STEP ASSEMBLY (HIGH-LONG, RH)
		1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
			1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
					1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
							1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
4	4							D2182B035	RUBBER CUSHION
		1 2	2	2	2	41		-D2230-1	MOUNTING LUG
		[2	2	2	2	4	4	D2230-3	MOUNTING LUG
8	8	6 2 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14						D2274	RADIUS BLOCK
						2	2	D2618	BUSHING
4	4	/4	4	4	4			D2732-030 /	CUSHION
2	2	ל 1	1	1	1	2	2	_D2856-400-720	7ABRASION STRIP
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	2	D3235-1	MOUNTING LUG
						11	1	D3278-041	SUPPORT ASSEMBLY
								ANIO DEA	POLT
2	2	12	2	2	2	2	2	AN3-35A >	BOLT BOLT
10	10	1/2	2	2	2		 	AN4-11A	BOLT BOLT
		1 4	4	4	4	8	8	AN4-13A	
				gramping.		2	2	AN5-36A	BOLT
4	4	r4-	4	4	4-	4	4-	AN960JD10	WASHER
20	20	12	12	12	12	16_	16	AN960JD416	TWASHER
		<u> </u>				4	4	AN960JD516	WASHER
2	2	/ 2	2	2	2	2	2	MS21042L3 /	NUT
10	10	/ 6	6	6	6	8	8	MS21042L4	NUT
						2	2	MS21042L5	NUT
	I	1	l			1	1	*DSI 9410-011	STEP MODIFICATION KIT

^{*}DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.



DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER AND

INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-6 REF FAA STC: SH967NE

For D350-591-213/-214/-215/-216 steps, customers have the option of installing D2732-030 cushion under the clamps to accommodate varying crosstube diameters and to improve fit, as indicted in Installation Instructions D350-591. This Service Instruction adds longer AN4-16A bolts to the parts list to allow installation of these cushions. See Figure 1 on sheet 2 of this service instruction for reference. Installation of the D2856-400-720 Abrasion Strips per Installation Instructions D350-591 is not required when the cushions are installed.

For D350-591-213/-214/-215/-216 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

ADD:

Q(y)	Qty -214	Qty -215	Qty -216	Part Number	Description					
Х				D350-591-213	Heli-Access-Step ™, Short Step - High Skid, LH					
	Х			D350-591-214	Heli-Access-Step ™, Short Step - High Skid, RH					
		Х		D350-591-215	Heli-Access-Step ™, Short Step - Low Skid, LH					
			Х	D350-591-216	Heli-Access-Step ™, Short Step - Low Skid, RH					
44	4	4-	4	AN4*16A***********************************						

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

BY: D. SHEPHERD (DE # 02)

DATE: 09.08.05
CERT. NO.: SH92-6
ISSUE NO.: 11

Α	NEW IS	SUE		RF	09.08.05						
REV.			DESCRIPTION	BY	DATE						
DESIGN		97	DART AERO	DART AEROSPACE LTD							
DRAWN RF			HAWKESBURY, ONTARIO, CANADA								
CHECKED		u	DRAWING NO.		REV. A						
MFG. AF	PPR.	NIA	DSI 9472		SHEET 1 OF 2						
APPRO	VED	M	TITLE		SCALE						
DE APP	DE APPR.		BOLT ADDITION		NTS						
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